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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,875	02/26/2002	Katsuya Matsunaga	JP920000430US1	4944

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EXAMINER

LEFLORE, LAUREL E

ART UNIT	PAPER NUMBER
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2673

DATE MAILED: 02/23/2004

3

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/082,875

Applicant(s)

MATSUNAGA, KATSUYA

Examiner

Laurel E LeFlore

Art Unit

2673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 9-12, 15-18 and 23-26 is/are rejected.
- 7) ☒ Claim(s) 5-8, 13, 14, 19-22, 27 and 28 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: On page 14, lines 20-21, the switch 142 and the switch 143 both input “,”.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 15 and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Derocher et al. 6,304,249 B1.

In regard to claim 1, Derocher discloses an input unit comprising a sensor which detects a displacement. See column 4, lines 40-44, disclosing, “In a preferred embodiment the tracking system is an optical system which measures changes in positions by optically acquiring images (frames) and mathematically determining the direction and magnitude of movement. In one embodiment the tracking system includes a sensor”. It is inherent that this tracking system is supported by the plate-like main unit, which is the housing 64 of the mouse depicted in figures 11-13.

The input unit of Derocher further comprises a finger support member pivotally coupled to said main unit. See column 6, lines 53-64, in reference to figures 11-13, disclosing, "the lever arm portion 70 rotates in direction 80...the continued rotation of the lever arm portion 70 brings a notch (not shown) into contact with the support arm 72 forcing the support arm to move with the lever arm portion 70."

Derocher further discloses that the sensor, the main unit, and the finger support member define a plate- like structure when the finger support member is pivoted inline with said main unit. See column 6, lines 39-52, again in reference to figures 11-13, disclosing, "To collapse the mouse 62, the lever arm is moved from the first position to the second position rotating the lever 66 in direction 74 (sic)...When the lever 66 reaches the second position (see FIG. 13) the support arm 74 and lever arm section 72 are generally parallel extending with the length of the housing 64."

4. In regard to claim 2, Derocher discloses that the plate-like structure is storable in any one of a card slot and a free space of an information processing unit. See column 8, lines 25-29, in reference to figure 21, disclosing, "When in the reduced volume storage configuration, mouse 10/10' can be stored in the portable computer 12' or other accessory by configuring a mouse storage area to adhere clasp or otherwise removable attach the mouse case." Further see figure 21, elements 134, 132, 140 and 136, depicted storage areas for the mouse within the information processing unit.

5. In regard to claim 15, see rejection of claim 1. Further see rejection of claim 2 disclosing an information processing unit.
6. In regard to claim 16, see rejection of claim 2.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 3, 4, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Derocher et al. 6,304,249 B1 in view of Jondrow et al. 5,416,479.

In regard to claims 3 and 17, Derocher discloses an invention similar to that which is disclosed in claims 3 and 17 of the immediate invention. See rejection of claims 1 and 15 for similarities. Derocher does not disclose at least one open-close member, pivotally coupled to the main unit, and having a switch coupled thereto; the sensor, the main unit, the finger support member, and the open-close member defining a plate-like structure when the finger support member and the open-close member are pivoted inline with the main unit.

Jondrow discloses a position encoder system in which (see figure 8 and column 7, lines 17-21), "The top case 57 is hinged to the base 50, and includes features for securing the two switches 84 beneath the finger operated left keycap 138 and right keycap 142." Thus, Jondrow discloses an open-close

member (the top case), pivotally coupled to the main unit (the base) and having a switch coupled thereto (switches 84). Further see figures 1 and 2, disclosing a plate-like structure when the open-close member is pivoted inline with the main unit.

Jondrow further teaches in column 3, lines 12-19, that "the collapsed handle (FIG. 1) can be reconfigured into an expanded configuration as shown in FIG. 8. While in the expanded configuration, the handle presents an overall larger size for comfortable manual control of the handle without the finger and hand strain that might otherwise occur if the handle were used in the collapsed configuration for extended periods of time."

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the invention of Derocher and Jondrow to have a mouse with one open-close member, pivotally coupled to said main unit, and having a switch coupled thereto; the sensor, the main unit, the finger support member, and the open-close member defining a plate-like structure when the finger support member and the open-close member are pivoted inline with the main unit. One would have been motivated to make such a change based on the teaching of Jondrow to have "an overall larger size for comfortable manual control...without the finger and hand strain that might otherwise occur."

9. In regard to claims 4 and 18, see rejection of claim 2.

10. Claims 9-12 and 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Derocher et al. 6,304,249 B1 in view of Klein et al. 6,163,326.

In regard to claims 9 and 23, Derocher discloses an invention similar to that which is disclosed in claims 9 and 23 of the immediate invention. See rejections of claims 1 and 15 for similarities. See element 22 of figures 11-13, depicting switches coupled to the main unit. Derocher does not disclose that the switches are operable when the provided fingertips are placed between said main unit and the finger support member when the finger support member is pivoted in an open state.

Klein discloses an invention in which switches are operable when the fingertips are placed between the main unit and a finger support member when the finger support member is pivoted in an open state. See column 7, lines 21-35, disclosing a foldable joystick (pivoted finger support member), which is depicted in figure 3. It is understood that the switch would be operable when the fingertips are placed between the main unit 64 and the finger support member 59.

Klein teaches in column 4, lines 51-56 that "the pointing device 51 and the input switches 52 may be positioned on other surfaces of the housing 64, so long as they may be easily engaged by the user."

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the inventions of Derocher and Klein to have an input unit with a finger support member in which switches are operable when fingertips are placed between the main unit and the finger support member when the finger support member is pivoted in an open state. One would have been

motivated to make such a change based on the teaching of Klein to position the pointing device and switches on any surface of the main unit, "so long as they may be easily engaged by the user".

11. In regard to claims 10 and 24, see rejection of claim 2.

12. In regard to claims 11 and 25, Klein further discloses that the finger support member is singular and configured such that fingertip insertion is nearly vertical to the pivotal direction of said single finger support member. Again see figure 3, depicting that the finger support member 59 is singular. The pivotal direction of the finger support member, and any pivotal direction, is circular. Thus, as it is best understood, any direction is "vertical to the pivotal direction". Thus, fingertip insertion is "nearly vertical to the pivotal direction."

13. In regard to claims 12 and 26, see rejection of claim 2.

Allowable Subject Matter

14. Claims 5-8, 13, 14, 19-22, 27 and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sakamoto et al. 2001/0005198 discloses a mouse with open/close click-button covers.

Kress 5,949,406 discloses a mouse with finger supports.

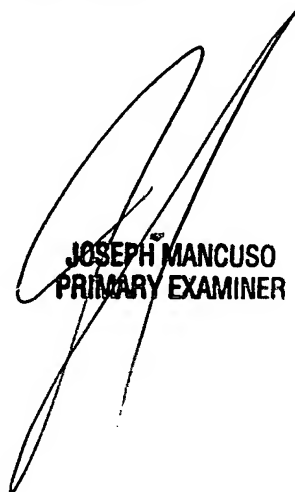
Chen et al. 5,990,870 discloses a mouse with pivoting finger supports.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laurel E LeFlore whose telephone number is (703) 305-8627. The examiner can normally be reached on Monday-Friday 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on (703) 305-3885. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LEL


JOSEPH MANCUSO
PRIMARY EXAMINER